WHAT IS CLAIMED IS:

1.   A method comprising searching a mobile communication system for use of a network address.

2.   The method of claim 1, wherein the network address is an internet protocol address.

3.   The method of claim 2, wherein the internet protocol address is one of:

a static internet protocol address; and

a dynamically allocated internet protocol address.

4.   The method of claim 1, wherein said searching is responsive to a request from a network management center including identification of the network address.

5.   The method of claim 4, wherein the request from the network management center is responsive to a request from an internet protocol network including identification of the network address.

6.   The method of claim 1, wherein said searching comprises at least one of tracing and monitoring the network address.

7. The method of claim 6, wherein said tracing and monitoring comprises determining if the network address is an active network address in the mobile communication system.

8. The method of claim 7, wherein if it is determined that the network address is an active network address in the mobile communication system, then determining if a packet call having the network address exists in a packet data protocol context database.

9. The method of claim 8, wherein if it is determined that the network address exists in the packet data protocol context database, then performing at least one of tracing and monitoring of the network address.

10. The method of claim 8, wherein if it is determined that the network address does not exist in the packet data protocol context database, then setting a trigger flag, wherein the trigger flag includes the network address.

11. The method of claim 10, comprising determining if a packet call having the network address included in the trigger flag exists in a packet data protocol context database.

12. The method of claim 11, wherein if it is determined that the network address exists in the packet data protocol context database, then performing at least one of tracing and monitoring of the network address.

13. The method of claim 6, wherein said searching comprises transmitting results of said at least one of tracing and monitoring the network address.

14. The method of claim 13, wherein said transmitting is to a network management center.

15. An apparatus configured to implement the method of claim 1.

16. The apparatus of claim 15, wherein the apparatus is comprised in a serving GPRS support node.

17. The apparatus of claim 15, wherein the apparatus is comprised in a gateway GPRS support node.

18. An apparatus comprising:

an interface to an internet protocol network; and

a means for tracing and monitoring a packet call of a mobile communication subscriber who has connected to the internet protocol network through the interface.

19. A method of tracing and monitoring a call in a mobile communication system, the method comprising performing a packet call tracing and monitoring of a mobile communication subscriber using a subscriber Internet protocol (IP) of an IP network.

20. A method of tracing and monitoring a call in a mobile communication system provided with a network management center and a serving general packet radio service (GPRS) support node (SGSN), the method comprising:

a first step of a related agency transmitting a target Internet protocol (IP) address subject to a request for tracing and monitoring to the network management center of the mobile communication system;

a second step of the network management center requesting a packet call tracing and monitoring of the target IP address to the SGSN; and

a third step of the SGSN tracing and monitoring the packet call of the target IP address and transmitting a result of the packet call tracing and monitoring to the network management center.

21. The method of claim 20, wherein the third step comprises the steps of:

checking whether the target IP address is an effective IP in a network to which the corresponding subscriber belongs;

if it is checked that the target IP address is the effective IP address, activating the call tracing and monitoring of the target IP address; and

performing the packet call tracing and monitoring and transmitting the result of the packet call tracing and monitoring.

22.   The method of claim 21, further comprising the step of if it is checked that the target IP address is not the effective IP address in the network to which the corresponding subscriber belongs, returning the system to a state before the request for tracing and monitoring of the target IP address is produced in the IP network.

23.   The method of claim 21, wherein the step of activating the packet call tracing and monitoring of the target IP address comprises the steps of:

the SGSN judging whether the packet call having the target IP address exists in a packet data protocol context database stored in the SGSN; and

if it is judged that the packet call having the target IP address exists in the packet data protocol context database, starting the packet call tracing and monitoring of an address of the target IP address.

24.   The method of claim 23, wherein the step of activating the call tracing and monitoring of the target IP address further comprises the steps of if it is judged that the packet call having the target IP address does not exist in the packet data protocol context database, setting a trigger flag of the target IP address, and if the packet call having an IP address with the set trigger flag exists in the packet data protocol context database, starting the packet call tracing and monitoring of the corresponding IP address.

25.   The method of claim 21, wherein the step of performing the packet call tracing and monitoring is a step of the SGSN checking whether a request and change of the packet call, a request for release of the packet call are produced with respect to a message that the SGSN transmits to and receives from a mobile station.

26.   The method of claim 25, wherein the message that the SGSN transmits to and receives from the mobile station includes an active packet data protocol (PDP) context request message that is transmitted from the mobile station to the SGSN and an active PDP context request response message that is transmitted from the SGSN to the mobile station.

27.   The method of claim 20, wherein at the third step, the SGSN periodically transmits the result of the packet call tracing and monitoring to the network management center.

28.   The method of claim 20, further comprising a fourth step of the SGSN inactivating the packet call tracing and monitoring after the third step.

29.   The method of claim 28, wherein the fourth step of inactivating the packet call tracing and monitoring of the target IP address comprises the steps of:

the SGSN receiving input of the target IP address subject to inactivation through the network management center;

checking whether the packet call tracing and monitoring of the target IP address is in an active state; and

if it is checked that the packet call tracing and monitoring of the target IP address is in the active state, terminating the activation and transmitting a result of the inactivation.

30.   The method of claim 29, wherein the fourth step of inactivating the packet call tracing and monitoring of the target IP address further comprises the steps of:

if it is checked that the packet call tracing and monitoring corresponding to the target IP address is in an inactive state, checking whether a trigger flag for the tracing and monitoring of the target IP is set; and

if it is checked that the trigger flag is set, removing the trigger flag and terminating the tracing and monitoring work.

31.   The method of claim 30, wherein the fourth step of inactivating the packet call tracing and monitoring of the target IP address further comprises the step of if it is checked that the trigger flag for the call tracing and monitoring of the target IP address is not set, returning the mobile communication system to a state before an address of the target IP address subject to inactivation is inputted to the network management center.

32.   A method of tracing and monitoring a call in a mobile communication system provided with a network management center and a gateway general packet radio service (GPRS) support node (GGSN), the method comprising:

a first step of a related agency transmitting a target Internet protocol (IP) address subject to a request for tracing and monitoring to the network management center of the mobile communication system;

a second step of the network management center requesting a packet call tracing and monitoring of the target IP address to the GGSN; and

a third step of the GGSN tracing and monitoring the packet call of the target IP address and transmitting a result of the packet call tracing and monitoring to the network management center.